

(Model.)

E. P. BROWN.
ARTIFICIAL TOOTH CROWN.

No. 423,467.

Patented Mar. 18, 1890.

Fig. 1.



Fig. 2.

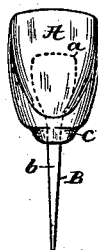
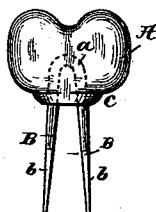


Fig. 3.



Attest:

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Atty:

UNITED STATES PATENT OFFICE,

E. PARMLY BROWN, OF FLUSHING, NEW YORK.

ARTIFICIAL TOOTH-CROWN.

SPECIFICATION forming part of Letters Patent No. 423,467, dated March 18, 1890.

Application filed January 11, 1887. Serial No. 224,016. (Model.) Patented in England July 4, 1888, No. 12,310.

To all whom it may concern:

Be it known that I, E. PARMLY BROWN, a citizen of the United States, and a resident of Flushing, in the county of Queens and State of New York, have invented certain new and useful Artificial Crowns for Attachment to the Natural Roots of the Human Teeth, (for which Letters Patent of England were granted July 4, 1888, No. 12,310,) of which the following is a specification.

My present invention relates to artificial crowns to be attached to the natural roots of human teeth.

The object of the invention is to produce an artificial porcelain crown that will combine great strength with natural appearance, and whose construction will admit of easy application and simplicity of manufacture.

The invention consists in combining an artificial porcelain crown with a tapered metal pin having its basal or enlarged end baked in the porcelain crown; also in extending the porcelain body or tooth material of the artificial crown onto and around the pin which is baked in the crown, and for a short distance below the base of the latter, and also in certain details of construction, all as hereinafter set forth.

To enable those skilled in the art to understand and make use of my invention, I will proceed to describe the same in connection with the accompanying drawings, which drawings form a part of this specification, and in which like features are indicated by like letters of reference in the several views.

In the drawings, Figure 1 illustrates a side elevation of a porcelain single-pin crown designed for front teeth having but one root. Fig. 2 is a front elevation of the same crown, and Fig. 3 is a side elevation of a double-pin crown for teeth having two roots.

I am aware that metal pins have been heretofore baked in artificial teeth; but such pins were unlike mine in form and did not possess the same strength as mine nor the same simplicity of application.

Referring to the drawings, the letter A indicates the porcelain crown, and B the metal pin or pins, (of platinum or platino-iridium) which latter are baked in position in the porcelain body or tooth material.

In Figs. 1 and 2 the pin B has a head *a*, which is flattened in a lateral direction corresponding somewhat to the form of the crown, which head is an important element of strength, and it prevents the pins approaching the crown at points where the latter is small and thin. The shank *b* of the pin B is flattened at right angles to the flat surface of the head *a*, being thus broadened in a direction from the front to the back of the crown, and this flattened surface of the shank is broadest where it enters the porcelain crown or tooth material, and from that point it tapers to its extremity, as shown.

As indicated at *c*, I show the porcelain body or tooth material extending onto and around the pin below the base of the crown for about the sixteenth of an inch, thus providing an important element of strength at this point, where the strain is greatest.

In Fig. 3, which shows a crown for teeth having two roots, I employ two metal pins B. These pins may have flat tapering shanks *b*, the same as the pins of Figs. 1 and 2, and they may be joined at their tops *a* as in the form of a staple, or may be entirely separate from each other. These pins are baked in the porcelain crown, and the tooth material is caused to extend onto and around the pins below the base of the crown, for the purpose of increased strength and security at that point, in the same manner as in the constructions of Figs. 1 and 2.

There are recognized advantages in my tapered pin having its basal or enlarged end baked in the porcelain crown. When the pin is of uniform diameter, it is required to be made smaller than is desirable for strength, in order that it may be entered into the canal of the tooth-root without unduly enlarging said canal, and when such a pin is subjected to strain when in use it is liable to break at the point where it is joined to the porcelain crown; and, on the other hand, if made of a size large enough to insure the necessary strength, the opening in the tooth-root is necessarily required to be so great as to materially weaken the walls of the latter.

By making use of my tapered pin and baking its basal or enlarged end into the porcelain crown I obtain the required strength at

the point of union with the porcelain crown and avoid the necessity of unduly enlarging the tooth-root opening.

Having thus described my invention, what
5 I claim as new, and desire to secure by Letters Patent, is—

1. An artificial crown of porcelain for attachment to the natural root of a human tooth, in combination with a tapered metal
10 pin having its basal or enlarged end baked in the porcelain body, substantially as set forth.

2. An artificial crown of porcelain for attachment to the natural root of a human
15 tooth, having baked therein a metal pin whose shank is broadest at the point where it enters said crown, and having the porcelain body or tooth material extended around said broadened portion of the shank for a short
20 distance below the base of the crown, whereby an element of strength at the point of greatest strain is provided, substantially as set forth.

3. An artificial crown of porcelain for attachment to the natural root of a human
25 tooth, having baked therein a metal pin

whose shank is flattened at right angles to the face of said crown and is broadest at the point where it enters the crown or tooth material, substantially as set forth. 30

4. An artificial crown of porcelain for attachment to the natural root of a human tooth, combined with and having baked therein a metal pin having a shank flattened at right angles to the face of said crown, and
35 a head integral with the shank and flattened at right angles to the flat surface of the shank, substantially as set forth.

5. As a new article of manufacture, a metal pin for attaching an artificial crown to a natural root of a human tooth, having a flat shank
40 and a head integral with the shank and flattened at right angles to the flat surface of the shank, substantially as set forth.

Signed at Flushing, in the county of Queens
45 and State of New York, this 8th day of December, A. D. 1886.

E. PARMLY BROWN.

Witnesses:

L. PARMLY BROWN,
D. F. PHALON.